

**Amendments to the claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-20 (canceled)

Claim 21 (currently amended): A device for application of active substances to a wound surface, said device comprising:

a padding of porous material adapted for application upon a wound surface,  
a sealing cover for covering the wound surface and the padding and adapted to be sealingly applied to the skin surface,  
at least one supply line introduced into the padding for supplying a fluid active substance,  
and  
at least one removal line introduced into the padding for removing said active substance,  
said removal line connectable to a vacuum source,

wherein said supply line (~~22; 22.1; 22.2~~) is provided with a controllable closure mechanism (~~32; 38; 40; 44; 46; 48; 50~~), said removal line (~~26~~) is provided with a controllable closure mechanism (~~34; 38; 42; 44; 46; 48; 52~~) and a controller (~~36~~) is provided which temporally controls these closure mechanisms (~~32; 34; 38; 40; 40; 42; 44; 46; 48; 50; 52~~) so that the closure mechanism (~~32; 34; 38; 40; 40; 42; 44; 46; 48; 50; 52~~) of the supply line (~~22; 22.1; 22.2~~) and the closure mechanism (~~34; 38; 40; 42; 44; 46; 48; 52~~) of the removal line (~~26~~) are not open at the same time and that in the time interval between the closure of the closure mechanism (~~32; 34; 38; 40; 42; 44; 46; 48; 50; 52~~) of the supply line (~~22; 22.1; 22.2~~) and the opening of the

closure mechanism (~~34; 38; 40; 40; 42; 44; 46; 48; 50; 52~~) of the removal line (~~26~~) a treatment dwell time interval ( $T_2$ ) is provided.

Claim 22 (currently amended): The A device according to claim 21, wherein said padding (~~12~~) is comprised of an elastic compressible porous material.

Claim 23 (currently amended): The A device according to claim 22, wherein said padding (~~12~~) is comprised of an open pored PVA-foam material.

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Claim 24 (currently amended): The A device according to claim 21, wherein the sealing cover is a flexible foil (~~14~~), which is air tight yet permeable to water vapor.


Claim 25 (currently amended): The A device according to claim 21, wherein said supply line (~~22; 22.1; 22.2~~) and said removal line (~~26~~) are introduced into the padding (~~12~~) via a common drainage hose (~~16~~).

Claim 26 (currently amended): The A device according to claim 21, wherein said supply line (~~22; 22.1; 22.2~~) and said removal line (~~26~~) are respectively introduced into the padding (~~12~~) via separate drainage hoses (~~16, 18~~).

Claim 27 (currently amended): The A device according to claim 21, further comprising a controller (~~36~~) for controlling the timing of the opening process of the closure mechanism (~~32; 34; 38; 40; 42; 44; 46; 48; 50; 52~~) of the supply line (~~22; 22.1; 22.2~~).

Claim 28 (currently amended): The A device according to claim 21, further comprising a controller (36) for controlling the opening process of the closure mechanisms (34; 38; 40; 42; 44; 46; 48; 50; 52) of the removal line (26).

Claim 29 (currently amended): The A device according to claim 21, wherein said controller (36), after ~~the~~ a suctioning period ( $T_3$ ), determines a vacuum time interval ( $T_4$ ) in which a predetermined vacuum is maintained in the padding (12).

 Claim 30 (currently amended): The A device according to claim 21, further comprising a pressure sensor (38) adapted to be introduced under the ~~sealingly engagable~~ sealing cover (14), and operably connected with said controller (36).

Claim 31 (currently amended): The A device according to claim 21, wherein the closure mechanisms (32; 34) are electromagnetic, pneumatic or hydraulic operated hose clamps.

Claim 32 (currently amended): The A device according to claim 31, wherein at least one of said supply line (22) and removal line (34) are constructed as a hose, wherein said hose clamps (32; 34) have a receptacle for receiving said supply line (22) or removal line (26), and wherein said hose clamps (32; 34) have a piston responsive to said controller and adapted for squeezing said hose against a hose claim sidewall.

Claim 33 (currently amended): The A device according to claim 21, wherein said closure mechanisms are multi-way valves (38; 40; 42; 44; 46; 48; 50; 52).

Claim 34 (currently amended): The A device according to claim 33, wherein said multi-way valves ~~(38; 40; 42; 44; 46; 48; 50; 52)~~ are operable via a step motor controlled by said controller ~~(36)~~.

Claim 35 (currently amended): The A device according to claim 21, wherein said controller ~~(36)~~ is programmable electronic controller.

Claims 36-39 (canceled)

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Claim 40 (new): A device for application of substances to a wound surface, said device comprising

a padding of porous material adapted for application upon a wound surface,  
a sealing cover for covering the wound surface and the padding and adapted to be sealingly applied to the skin surface,

at least one supply line introduced into the padding for supplying a substance, and  
at least one removal line introduced into the padding for removing said substance, said removal line connectable to a vacuum source,

wherein said supply line is provided with a controllable closure mechanism, said removal line is provided with a controllable closure mechanism and a controller is provided which temporally controls these closure mechanisms so that the closure mechanism of the supply line and the closure mechanism of the removal line are not open at the same time and that in the time interval between the closure of the closure mechanism of the supply line and the opening of the closure mechanism of the removal line a treatment dwell time interval is provided.